



CALS TEST NETWORK

# AFCTN Test Report 94-013

AFCTB-ID  
93-023



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## Technical Publication Transfer

Using:

Northrop Corporation's Data

MIL-D-2800A (IGES)  
MIL-M-28001A (SGML)  
MIL-R-28002A (Raster)  
MIL-D-28003 (CGM)

Quick Short Test Report

17 March 1993



*Prepared for*

*Electronic Systems Center*

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**Quick Short Test Report**

**17 March 1993**

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## 1. Introduction

### 1.1 Background

The Department of Defense (DoD) Air Force Continuous Acquisition and Life-Cycle Support (CALS) Test Network (AFCTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD-1480A, and its companion suite of military specifications. The AFCTN is a DoD sponsored confederation of voluntary participants from industry and government managed by the Electronic Systems Center (ESC).

The primary objective of the AFCTN is to evaluate the effectiveness of the CALS standards for technical data interchange and to demonstrate the technical capabilities and operational suitability of those standards. Two general categories of tests are performed to evaluate the standards; formal and informal.

Formal tests are large and comprehensive, which follow a written test plan, require specific authorization from the DoD, and may take months to prepare, execute, and report.

Informal tests are quick and short, used by the AFCTN technical staff, to broaden the testing base. They include representative samples of the many systems and applications used by AFCTN participants. They also allow the AFCTN staff to gain feedback from many industry and government interpretations of the standards, to increase the base of participation in the CALS initiative, and respond to the many requests for help that come from participants. Participants take part voluntarily, benefit by receiving an evaluation of their latest implementation (interpretation) of the standards, interact with the AFCTN technical staff, gain experience using the standards, and develop increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

## **1.2 Purpose**

The purpose of the informal test, reported in this QSTR, was to analyze Northrop Corporation's interpretation and use of the CALS standards in transferring technical publication data. Northrop used its CALS Technical Data Interchange System to produce data, in accordance with the standards, and delivered it to the AFCTN technical staff on a 9-track magnetic tape.

## 2. Test Parameters

**Test Plan:** AFCTB 93-023

**Date of Evaluation:** 17 March 1993

**Evaluator:**  
George Elwood  
Air Force CALS Test Bed  
DET 2 HQ ESC/AV-2P  
4027 Colonel Glenn Hwy  
Suite 300  
Dayton OH 45431-1672

**Data Originator:**  
John P. Kent  
Northrop Corporation  
B-2 Division  
L591/GK  
8900 E. Washington Blvd  
Pico Rivera CA 90660-3765  
(310) 948-0624

**Data Description:** Technical Manual Test  
1 Document Declaration file  
1 Document Type Definition (DTD)  
4 Initial Graphics Exchange Specification (IGES) files  
1 Text/Standard Generalized Markup Language (SGML) file  
1 Raster file  
1 Computer Graphics Metafile (CGM) file  
1 Format Output Specification Instance (FOSI)

**Data Source System:**

IGES	
HARDWARE	Unknown
SOFTWARE	ITDS CONVERTER: GFF-IGES

Text/SGML

**HARDWARE**

Unknown

**SOFTWARE**

Unknown

Raster

**HARDWARE**

Unknown

**SOFTWARE**

Unknown

CGM

**HARDWARE**

Unknown

**SOFTWARE**

ITDS GEF

Evaluation Tools Used:

**MIL-STD-1840A (TAPE)**

SUN 3/280

AFCTN Tapetool v1.2.8 UNIX

XSoft CAPS/CALS v40.4

**MIL-D-28000 (IGES)**

Sun SparcStation 2

ArborText iges2draw

IGES Data Analysis (IDA) Parser/Verifier v92

IDA IGESView v3.05

International TechneGroup Incorporated

(ITI) IGES/Works v1.3

Cheetah Gold 486

Cadkey Cadkey v5.02

**MIL-M-28001 (SGML)**

Cheetah Gold 486

Exoterica XGMLNormalizer v1.2e3.2

McAfee & McAdam Sema Mark-it v2.2.2

Public Domain sgmls

**MIL-R-28002 (Raster)**

SUN SparcStation 2

ArborText g42tiff

AFCTN validg4

AFCTN calstb.475

IDA IGESView v3.0

Island Graphics IslandPaint v3.0

MIL-D-28003 (CGM)  
SUN SparcStation 2  
ArborText *cgm2draw*  
Island Graphics *IslandDraw v3.0*  
Cheetah Gold 486  
Advance Technology Center  
(ATC) *MetaView R 1.12*  
ATC *MetaCheck R 2.05*  
Software Publishing Corporation  
(SPC) *Harvard Graphics v3.05*  
Corel Ventura Publisher

**Standards**

**Tested:**

MIL-STD-1840A  
MIL-D-28000A  
MIL-M-28001A  
MIL-R-28002A  
MIL-D-28003

### **3. 1840A Analysis**

#### **3.1 External Packaging**

The tape arrived at the Air Force CALS Test Bed (AFCTB) enclosed in a box in accordance with ASTM D 3951. The exterior of the box was marked with the magnetic tape warning label, as required by MIL-STD-1840A, para. 5.3.1.3.

The tape was not enclosed in a barrier bag as required by MIL-STD-1840A, para. 5.3.1.2. Inspection of the tape reel showed the label indicating the recording density, as required by MIL-STD-1840A, para. 5.3.1. Enclosed in the box was a packing list showing all files recorded on the tape.

#### **3.2 Transmission Envelope**

The 9-track tape received by the AFCTB contained MIL-STD-1840A files. The files were named per the standard conventions.

##### **3.2.1 Tape Formats**

The tape was run through the AFCTN Tapetool v1.2.8 utility. No errors were encountered while evaluating the contents of the tape labels.

The tape was read without a reported problem using XSoft's CAPS *read1840A*.

##### **3.2.2 Declaration and Header Fields**

No errors were found in the Document Declaration file or data file headers.

The physical structure of the tape meets the CALS MIL-STD-1840A requirements.

## 4. IGES Analysis

The tape contained four IGES files. These files were evaluated using IDA's *Parser* and *Verifier* set for the CALS Class I standard. This utility reported that all four files meet the CALS Class I standard. This utility reported all four files as having basic IGES discrepancies. These consisted of line weight and misplaced points. See the log files in the Appendix for details.

The AFCTB has several tools for viewing IGES files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings.

The files were converted using Cadkey's *ig2c* utility with no reported errors. The resulting files were read into Cadkey's *Cadkey*, displayed, and printed. The images appear to be complete.

The files were converted using ArborText's *iges2draw* utility with no reported errors. The resulting files were read into Island Graphics' *IslandDraw*. Nothing was displayed on the screen. This problem has been forwarded to ArborText for their action.

The files were read into IDA's *IGESView*, displayed and printed without a problem. The images appear to be complete.

The files were read into ITI's *IGESWorks*, displayed and printed without a reported error. The images appear to be complete.

The IGES files meet the CALS MIL-D-28000A specification.

## 5. SGML Analysis

The first pass through the document using Exoterica's *XGML-Normalizer* parser generated two errors. The first error was the use of a public entity set that was not define in MIL-M-28002A and not available in the AFCTB. This statement was commented out. Use of a nonstandard entity set should be avoided. If used, they must be included with the document.

```
<!ENTITY % PUBspc PUBLIC "ISO 8879-1986//ENTITIES Tech Pubs Special  
Characters//EN">
```

The parser also reported an ambiguous content model.

```
C:\XGML\XGMLNORM.EXE -- Error on line 466 in file  
entities/93222.dtd:  
A content model is ambiguous.  
For element 'TOC'.  
The input is 'CONTENTSENTRY'.  
<!-- The document prolog is in error. -->
```

The element on the defined line had contentsentry on the line twice. When the line was change to reflect only one, no errors were reported.

```
<!ELEMENT toc      - o (contentsentry*,contents?,table?)  >  
<!-- line above replacing below  
<!ELEMENT toc      - o  
(contentsentry*,contents?,table?,contentsentry*)  > -->
```

When the text file was parsed using the contentsentry at the end of the string, five errors were reported. When the contentsentry was moved to the front of the string, one error was reported.

The Public Domain *sgmls* and McAfee & McAdam's *Sema Mark-it* parsers also reported similar errors.

The basic DTD with the only non-standard reference commented out was parsed using another parser available within the AFCTB with no reported errors. The Text file also parsed without a reported error.

---

The DTDs and Text files do not meet the CALS MIL-M-28001A specification.

## 6. Raster Analysis

The tape included one type I Raster file. This file was evaluated using the AFCTN *validg4* utility which reported the file was bad.

When an attempt to read the file using the AFCTN *calstb.475*, a Raster viewer, a core dump resulted.

The AFCTB has several tools for viewing Raster files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings.

The file was read into IDA's *IGESView* without a reported error. The image generated consisted of random lines.

The file was converted using ArborText's *g42tiff* utility without a reported error. The resulting file was then read into Island Graphics' *IslandPaint*. The image consisted of random lines.

The Raster file does not meet the CALS MIL-R-28002A specification.

## 7. CGM Analysis

The tape included one CGM file. This file was evaluated using ATC's *MetaCheck* with CALS options. This utility, which is not the most current version, reported the file as meeting the CALS MIL-D-28003 specification.

The file was evaluated using the AFCTN beta *validcgm* utility, which reported two errors.

The AFCTB has several tools for viewing CGM files. These tools are not used to generate a pass/fail but to report how

commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings.

ATC's *MetaView* displayed the image with font problems and a reported error.

The file was converted using ArborText's *cgm2draw* utility without a reported error. The resulting file was read into Island Graphics' *IslandDraw*, displayed and printed. The image appeared complete and usable.

The file was imported directly into Island Graphics' *IslandDraw*. The result was many lines displayed along the top of the screen.

The file was imported into SPC's *Harvard Graphics 3.05* with two errors; line style and non-translated entities. The resulting image consisted of random lines on the screen.

When an attempt to import the file into Corel's *Ventura Publisher* it resulted in a message indicating that the file was not a valid CGM file.

The CGM file was reported as meeting the CALS MIL-D-28003 specification.

## 8. Conclusions and Recommendations

In summary, the tape from Northrop Corporation was correct. It could be read using available tools in the AFCTB without any reported errors. The physical structure of the tape meets the CALS MIL-STD-1840A requirements.

The included IGES files meet the CALS MIL-D-28000A specification.

The included DTD and Text files had reported errors and do not meet the CALS MIL-M-28001A specification.

The included Raster file was not acceptable and does not meet the CALS MIL-R-28002A specification.

The CGM file was reported as meeting the CALS MIL-D-28003 specification.

The tape, because of errors in the DTD, Text, and Raster files does not meet the CALS MIL-STD-1840A requirements.

---

## 9. Appendix A - Tapetool Report Logs

### 9.1 Tape Catalog

Air Force CALS Test Network Catalog Evaluation - Version 1.2; Release Number 8

Standards referenced:

- MIL-STD-1840A (1987) - Automated Interchange of Technical Information
- ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes for Information Interchange
- ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Tue Mar 16 11:28:44 1993

MIL-STD-1840A File Catalog

File Set Directory: /cals/tapetool8/Set073

Page: 1

File Name	File Type	Record Format/ Length	Block Length/ Total	Selected/ Extracted
<hr/>				
D001	Document Declaration	D/00260	02048/000001	Extracted
D001T001	Text	D/0C260	02048/000009	Extracted
D001G002	DTD	D/00260	02048/000010	Extracted
D001H003	Output Specification	D/00260	02048/000051	Extracted
D001Q004	IGES	F/00080	02000/000281	Extracted
D001Q005	IGES	F/00080	02000/000138	Extracted
D001Q006	IGES	F/00080	02000/000224	Extracted
D001Q007	IGES	F/00080	02000/000224	Extracted
D001C008	CGM	F/00080	00800/000062	Extracted
D001R009	Raster	F/00128	02048/000005	Extracted

Catalog Process terminated normally.

## 9.2 Tape Evaluation Log

ir Force CALS Test Network Tape Evaluation - Version 1.2; Release Number 8  
Standards referenced:

ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes  
for Information Interchange  
ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Tue Mar 16 11:27:55 1993

ANSI Tape Import Log

Allocating tape drive /dev/rmt0...

/dev/rmt0 allocated.

VOL1ITDS01                           CONTROLLER

4

Label Identifier: VOL1  
Volume Identifier: ITDS01  
Volume Accessibility:  
Owner Identifier:  
Label Standard Version: 4

HDR1D001                           ITDS0100010001000100 93057 93057 000000 CONTROLLER

Label Identifier: HDR1  
File Identifier: D001  
File Set Identifier: ITDS01  
File Section Number: 0001  
File Sequence Number: 0001  
Generation Number: 0001  
Generation Version Number: 00  
Creation Date: 93057  
Expiration Date: 93057  
File Accessibility:  
Block Count: 000000  
Implementation Identifier: CONTROLLER

HDR2D0204800260                   00

Label Identifier: HDR2  
Recording Format: D  
Block Length: 02048  
Record Length: 00260  
Offset Length: 00

\*\*\*\*\* Tape Mark \*\*\*\*\*

Actual Block Size Found = 2048 Bytes.

Number of data blocks read = 1.

\*\*\*\*\* Tape Mark \*\*\*\*\*

EOF1D001 ITDS0100010001000100 93057 93057 000001 CONTROLLER

Label Identifier: EOF1  
File Identifier: D001  
File Set Identifier: ITDS01  
File Section Number: 0001  
File Sequence Number: 0001  
Generation Number: 0001  
Generation Version Number: 00  
Creation Date: 93057  
Expiration Date: 93057  
File Accessibility:  
Block Count: 000001  
Implementation Identifier: CONTROLLER

EOF2D0204800260 00

Label Identifier: EOF2  
Recording Format: D  
Block Length: 02048  
Record Length: 00260  
Offset Length: 00

\*\*\*\*\* Tape Mark \*\*\*\*\*

HDR1D001T001 ITDS0100010002000100 93057 93057 000000 CONTROLLER

Label Identifier: HDR1  
File Identifier: D001T001  
File Set Identifier: ITDS01  
File Section Number: 0001  
File Sequence Number: 0002  
Generation Number: 0001  
Generation Version Number: 00  
Creation Date: 93057  
Expiration Date: 93057  
File Accessibility:  
Block Count: 000000  
Implementation Identifier: CONTROLLER

HDR2D0204800260 00

Label Identifier: HDR2  
Recording Format: D  
Block Length: 02048  
Record Length: 00260  
Offset Length: 00

\*\*\*\*\* Tape Mark \*\*\*\*\*

Actual Block Size Found = 2048 Bytes.

Number of data blocks read = 9.

\*\*\*\*\* Tape Mark \*\*\*\*\*

EOF1D001T001 ITDS0100010002000100 93057 93057 000009 CONTROLLER

Label Identifier: EOF1  
File Identifier: D001T001  
File Set Identifier: ITDS01  
File Section Number: 0001  
File Sequence Number: 0002  
Generation Number: 0001  
Generation Version Number: 00  
Creation Date: 93057  
Expiration Date: 93057  
File Accessibility:  
Block Count: 000009  
Implementation Identifier: CONTROLLER

EOF2D0204800260 00

Label Identifier: EOF2  
Recording Format: D  
Block Length: 02048  
Record Length: 00260  
Offset Length: 00

\*\*\*\*\* Tape Mark \*\*\*\*\*

<<<< PART OF LOG REMOVED HERE >>>>

\*\*\*\*\* Tape Mark \*\*\*\*\*

HDR1D001R009 ITDS0100010010000100 93057 93057 000000 CONTROLLER

Label Identifier: HDR1  
File Identifier: D001R009  
File Set Identifier: ITDS01  
File Section Number: 0001

File Sequence Number: 0010  
Generation Number: 0001  
Generation Version Number: 00  
Creation Date: 93057  
Expiration Date: 93057  
File Accessibility:  
Block Count: 000000  
Implementation Identifier: CONTROLLER

HDR2F0204800128 00

Label Identifier: HDR2  
Recording Format: F  
Block Length: 02048  
Record Length: 00128  
Offset Length: 00

\*\*\*\*\* Tape Mark \*\*\*\*\*

Actual Block Size Found = 2048 Bytes.

Number of data blocks read = 5.

\*\*\*\*\* Tape Mark \*\*\*\*\*

EOF1D001R009 ITDS0100010010000100 93057 93057 000005 CONTROLLER

Label Identifier: EOF1  
File Identifier: D001R009  
File Set Identifier: ITDS01  
File Section Number: 0001  
File Sequence Number: 0010  
Generation Number: 0001  
Generation Version Number: 00  
Creation Date: 93057  
Expiration Date: 93057  
File Accessibility:  
Block Count: 000005  
Implementation Identifier: CONTROLLER

EOF2F0204800128 00

Label Identifier: EOF2  
Recording Format: F  
Block Length: 02048  
Record Length: 00128  
Offset Length: 00

\*\*\*\*\* Tape Mark \*\*\*\*\*

---

\*\*\*\*\* Tape Mark \*\*\*\*\*

##### End of Volume ITDS01 #####

##### End Of Tape File Set #####

Deallocating /dev/rmt0...

Tape Import Process terminated with 0 error(s), 0 warning(s),  
and 0 note(s).

## 9.3 Tape File Set Validation Log

Air Force CALS Test Network File Set Evaluation - Version 1.2; Release Number 8  
Standards referenced:

MIL-STD-1840A (1987) - Automated Interchange of Technical Information

Tue Mar 16 11:28:45 1993

MIL-STD-1840A File Set Evaluation Log

File Set: Set073

Found file: D001

Extracting Document Declaration Header Records...

Evaluating Document Declaration Header Records...

srcsys: John P. Kent, ITDS Chief Engineer, Northrop Corporation, B-2 Division, L591/GK  
E. Washington Blvd., Pico Rivera, CA 90660-3765 (310) 948-0624

srcdocid: 1B-2A-2-21JG-10-1

srcrelid: NONE

chglvl: ORIGINAL

dteisu: 19910301

dstsys: Jeff Fisher, Integration Manager, USAF CALS Test Bed, HQ AFMC (I)/ENCT,  
TechneCenter, 4027 Col. Glenn Highway, Dayton, OH 45431-1601

dstdocid: 1B-2A-2-21JG-10-1

dstrelid: NONE

dtetrn: 19930226

dlvacc: NONE

filcnt: T1, H1, G1, C1, Q4, R1

ttlcls: UNCLASSIFIED

doccls: UNCLASSIFIED

doctyp: JOB GUIDE

docttl: ENVIRONMENTAL CONTROL - ECS CONTROL

Found file: D001T001

Extracting Text Header Records...

Evaluating Text Header Records...

srcdocid: 1B-2A-2-21JG-10-1

dstdocid: 1B-2A-2-21JG-10-1

txtfilid: W

doccls: UNCLASSIFIED

notes: NONE

Saving Text Header File: D001T001\_HDR

Saving Text Data File: D001T001\_TXT

Found file: D001G002

Extracting DTD Header Records...  
Evaluating DTD Header Records...

srcdocid: 1B-2A-2-21JG-10-1  
dstdocid: 1B-2A-2-21JG-10-1  
notes: NONE

Saving DTD Header File: D001G002\_HDR  
Saving DTD Data File: D001G002\_DTD

Found file: D001H003  
Extracting Output Specification Header Records...  
Evaluating Output Specification Header Records...

srcdocid: 1B-2A-2-21JG-10-1  
dstdocid: 1B-2A-2-21JG-10-1  
notes: NONE

Saving Output Specification Header File: D001H003\_HDR  
Saving Output Specification Data File: D001H003\_OS

Found file: D001Q004  
Extracting IGES Header Records...  
Evaluating IGES Header Records...

srcdocid: 1B-2A-2-21JG-10-1  
dstdocid: 1B-2A-2-21JG-10-1  
txtfilid: W  
figid: NONE  
srcgph: B2AJG2111-0101A  
doccls: UNCLASSIFIED  
notes: NONE

Saving IGES Header File: D001Q004\_HDR  
Saving IGES Data File: D001Q004\_IGS

Found file: D001Q005  
Extracting IGES Header Records...  
Evaluating IGES Header Records...

srcdocid: 1B-2A-2-21JG-10-1  
dstdocid: 1B-2A-2-21JG-10-1  
txtfilid: W  
figid: NONE  
srcgph: B2AJG2112-0101A  
doccls: UNCLASSIFIED  
notes: NONE

Saving IGES Header File: D001Q005\_HDR

---

Saving IGES Data File: D001Q005\_IGS

Found file: D001Q006  
Extracting IGES Header Records...  
Evaluating IGES Header Records...

srcdocid: 1B-2A-2-21JG-10-1  
dstdocid: 1B-2A-2-21JG-10-1  
txtfilid: W  
figid: NONE  
srcgph: B2AJG2112-0109C  
doccls: UNCLASSIFIED  
notes: NONE

Saving IGES Header File: D001Q006\_HDR  
Saving IGES Data File: D001Q006\_IGS

Found file: D001Q007  
Extracting IGES Header Records...  
Evaluating IGES Header Records...

srcdocid: 1B-2A-2-21JG-10-1  
dstdocid: 1B-2A-2-21JG-10-1  
txtfilid: W  
figid: NONE  
srcgph: B2AJG2112-0110B  
doccls: UNCLASSIFIED  
notes: NONE

Saving IGES Header File: D001Q007\_HDR  
Saving IGES Data File: D001Q007\_IGS

Found file: D001C008  
Extracting CGM Header Records...  
Evaluating CGM Header Records...

srcdocid: 1B-2A-2-21JG-10-1  
dstdocid: 1B-2A-2-21JG-10-1  
txtfilid: W  
figid: NONE  
srcgph: B2AJG2111-0103D  
doccls: UNCLASSIFIED  
notes: NONE

Saving CGM Header File: D001C008\_HDR  
Saving CGM Data File: D001C008\_CGM

Found file: D001R009  
Extracting Raster Header Records...

Evaluating Raster Header Records...

```
srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
figid: NONE
srcgph: B2AJG2111-0104D
doccls: UNCLASSIFIED
rtype: 1
rorient: 000,270
rpelcnt: 000312,000500
rdenssty: 0300
notes: NONE
```

Saving Raster Header File: D001R009\_HDR

Saving Raster Data File: D001R009\_GR4

Evaluating numbering scheme...

No errors were encountered during numbering scheme evaluation.  
Numbering scheme evaluation complete.

Checking file count...

No errors were encountered during file count verification.  
File Count verification complete.

No errors were encountered in Document D001.

No errors were encountered in this File Set.

MIL-STD-1840A File Set Evaluation Complete.

## 10. Appendix B - Detailed IGES Analysis

### 10.1 File D001Q004

#### 10.1.1 Parser/Verifier Log

```
*** IGES DATA FILE ANALYSIS ***
***          MARCH 1992          ***
***      IGES Data Analysis    ***
***      (708) 449-3430        ***
```

Input file is /novell/9323/D001Q004\_IGS

Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

Today is March 16, 1993 4:59 PM

\*\*\* File and Product Name Information \*\*\*

```
File name from sender      = '0101A.gef.igs'
File creation Date.Time   = '930218.130008'
Model change Date.Time    = ''
Author                    = 'NORTHROP B2 ITDS CTB'
Department                = ''
Product name from sender = '0101A.gef.igs'
Destination product name = '0101A.gef.igs'
```

\*\*\* Parameter Delimiters \*\*\*

```
Delimiter = ','
Terminator = ';'
```

\*\*\* Originating System Data \*\*\*

```
System ID                  = 'ITDS CONVERTER: GEF_IGES'
Preprocessor version       = '1.0'
Specification version     = 6 (IGES 4.0)
```

\*\*\* Precision levels \*\*\*

```
Integer bits =      32
Floating point - Exponent =      38 Mantissa =      6
Double precision - Exponent = 308 Mantissa =     15
```

\*\*\* Global Model Data \*\*\*

```
Model scale              = 1.0000E+00
```

Unit flag = 1  
Units = 'IN'  
Line weights = 1  
Maximum line thickness = 6.300000E-03  
Minimum line thickness = 6.300000E-03  
CAUTION 2317: Maximum line thickness equal to minimum thickness.  
Granularity = 1.000000E-03  
Maximum coordinate = 7.243750E+00

Drafting standard applicable to original data is not specified.

\*\*\* Status Flag Summary \*\*\*

Blank status:	Visible	1850
	Blanked	0
Independence:	Independent	1838
	Physically Subordinate	8
	Logically Subordinate	4
	Totally Subordinate	0
Entity use:	Geometry	1831
	Annotation	19
	Definition	0
	Other	0
	Logical/Positional	0
	2D parametric	0
	Not Specified	0
Hierarchy:	Structure DE applies	0
	Subordinate DE applies	1850
	Hierarchy property applies	0
	Not Specified	0

\*\*\* Entity Occurrence Counts \*\*\*

Entity	Form	Level	Count	Type
-----	----	-----	-----	-----
104	1	0	659	Conic arc - ellipse
106	63	0	8	Simple closed planar curve
110	0	0	497	Line
112	0	0	5	Parametric spline curve
124	0	0	659	Transformation matrix
212	0	0	9	General note
230	0	0	8	Sectioned area (Standard Crosshatching)
404	0	0	1	Drawing
406	16	0	1	Property - Drawing size
406	18	0	2	Property - Intercharacter spacing

410 0 0 1 View - Orthographic parallel

\*\*\* Entity Count by Level \*\*\*

Level	Count
0	1850

\*\*\* Labeling Information \*\*\*

0% of the entities are labeled.

Unlabeled 1850

\*\*\* Line Fonts Used in Data \*\*\*

100 102 104 106 108 110 112 114

-	-	-	-	-	-	-	-	Undefined
-	-	166	8	-	42	4	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	493	-	-	455	1	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116 118 120 122 124 125 126 128

-	-	-	-	659	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

130 132 134 136 138 140 142 144

-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

\*\*\* Line Widths Used in Data \*\*\*

Weight	Count	Width
--------	-------	-------

Defaulted 1850 (0.0063)

\*\*\* Colors Used in Data \*\*\*

Defaulted 1784  
Black 57  
White 9

\*\*\*\*\*  
\*\*\*\*\* ENTITY ANALYSIS \*\*\*\*\*  
\*\*\*\*\*

\*\*\* Entity type: 104

WARNING 2265: Start point off conic by 1.190300E-03 at D 539.  
WARNING 2265: Start point off conic by 1.234213E-03 at D 595.  
WARNING 2265: Start point off conic by 1.388423E-03 at D 743.  
WARNING 2039: End point off conic by 1.388423E-03 at D 743.  
WARNING 2265: Messages regarding invalid start point suppressed.  
WARNING 2039: Messages regarding conic end points suppressed.

\*\*\* Entity type: 106

\*\*\* Entity type: 110

-- 497 lines averaging 2.015512E-01 units --

\*\*\* Entity type: 112

\*\*\* Entity type: 124

659 transformation matrices, 659 non-zero translations.  
NOTE 2341: 659 matrices contain translation information.

\*\*\* Entity type: 212

9 text strings in data file.  
Average text aspect ratio in file is 0.9883842.  
Minimum text aspect ratio in file is 0.9821430.  
Maximum text aspect ratio in file is 0.9910715.

FONTS USED IN FILE

FONT COUNT NAME

1 9 Default ASCII Style

\*\*\* Entity type: 230

---

\*\*\* Entity type: 404

Drawing at D 5 contains 1 views.  
Drawing at D 5 contains 0 annotation entities.

\*\*\* Entity type: 406

\*\*\* Entity type: 410

Scale of view at D 1 is 1.000000E+00.  
Orthographic View entity at D 1 has 0 clipping planes specified.  
XMIN = Not Set XMAX = Not Set  
YMIN = Not Set YMAX = Not Set  
ZMIN = Not Set ZMAX = Not Set

\*\*\* Message Summary \*\*\*

2015: 98 Mathematically incorrect definitions.

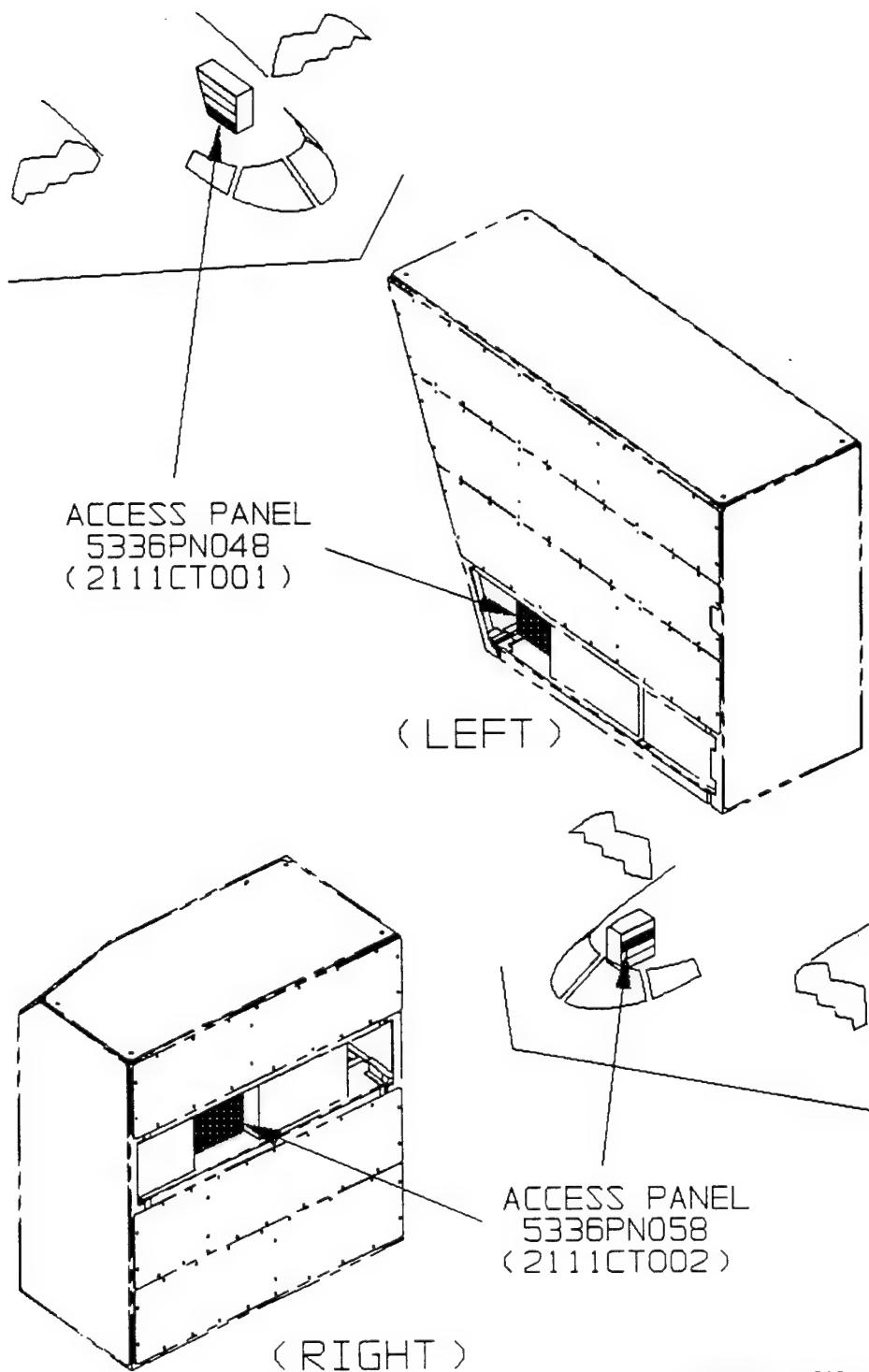
2018: 1 Problems with line weight/width display information.

\*\*\* Error Summary \*\*\*

0 fatal errors  
0 severe errors  
0 errors  
98 warnings  
1 cautions  
0 nitpicks  
1 notes

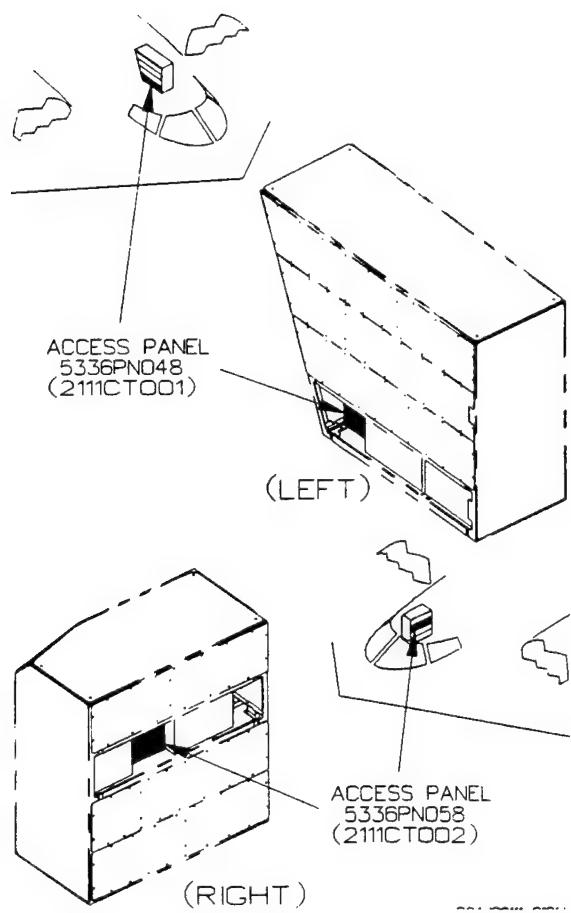
\*\*\* End of Analysis of /novell/9323/D001Q004\_IGS \*\*\*

### 10.1.2 Output Cadkey v5.02

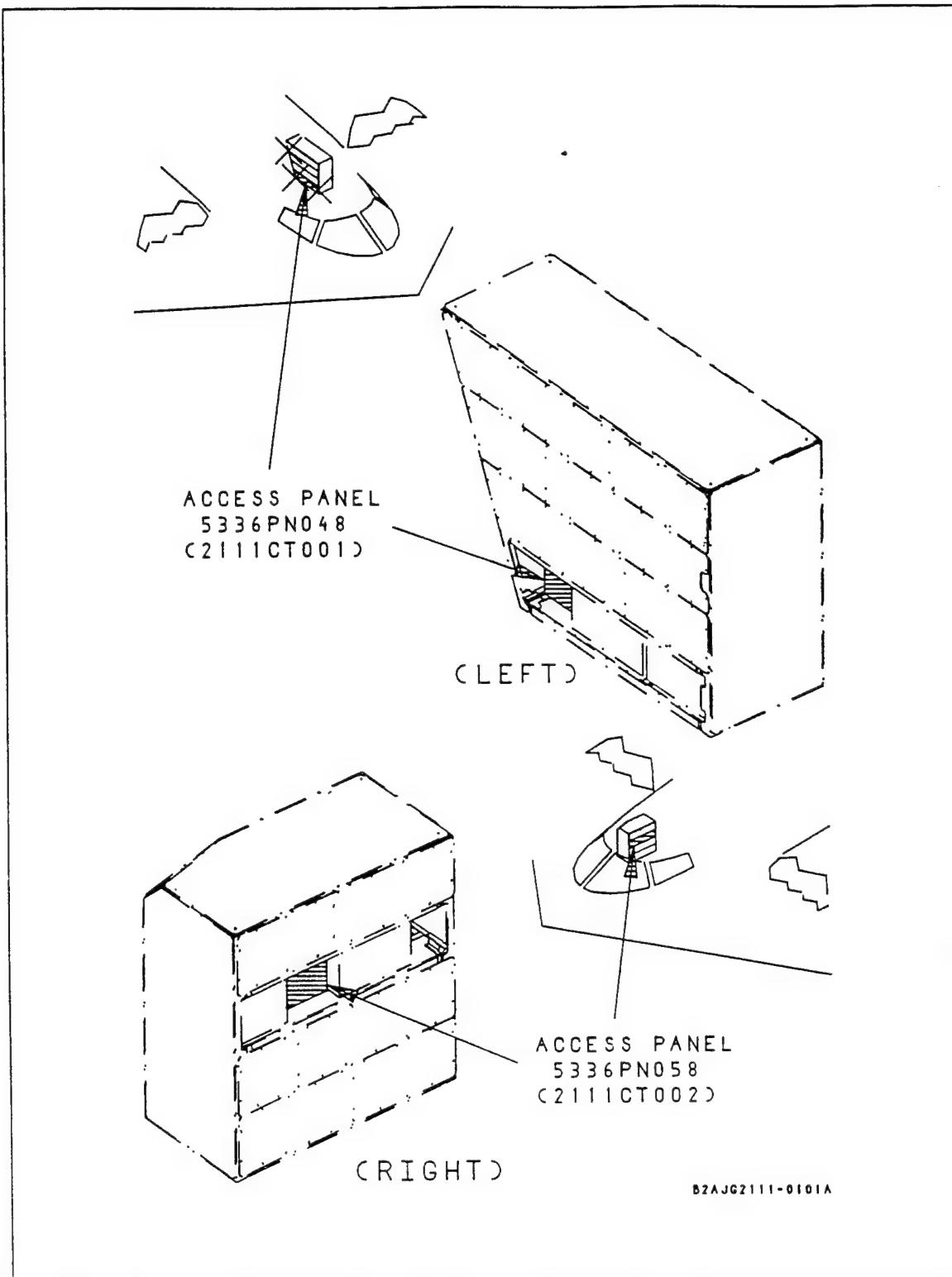


B2AJG2111-0101A

### 10.1.3 Output IGESView



### 10.1.4 Output IGESWorks



---

## 10.2 File D001Q005

### 10.2.1 Parser/Verifier Log

```
*** IGES DATA FILE ANALYSIS ***
***          MARCH 1992      ***
***    IGES Data Analysis   ***
***          (708) 449-3430     ***
```

Input file is /novell/9323/D001Q005\_IGS

Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

Today is March 16, 1993 4:59 PM

#### \*\*\* File and Product Name Information \*\*\*

```
File name from sender      = '0101A.gef.igs'
File creation Date.Time   = '930218.130511'
Model change Date.Time    = ''
Author                     = 'NORTHROP B2 ITDS CTB'
Department                 = ''
Product name from sender  = '0101A.gef.igs'
Destination product name = '0101A.gef.igs'
```

#### \*\*\* Parameter Delimiters \*\*\*

```
Delimiter = ','
Terminator = ';'
```

#### \*\*\* Originating System Data \*\*\*

```
System ID                  = 'ITDS CONVERTER: GEF_IGES'
Preprocessor version        = '1.0'
Specification version       = 6 (IGES 4.0)
```

#### \*\*\* Precision levels \*\*\*

```
Integer bits = 32
Floating point - Exponent = 38 Mantissa = 6
Double precision - Exponent = 308 Mantissa = 15
```

#### \*\*\* Global Model Data \*\*\*

```
Model scale                = 1.0000E+00
Unit flag                  = 1
Units                      = 'IN'
Line weights               = 1
```

Maximum line thickness = 3.937490E-03  
Minimum line thickness = 3.937490E-03  
CAUTION 2317: Maximum line thickness equal to minimum thickness.  
Granularity = 1.000000E-03  
Maximum coordinate = 4.168750E+00

Drafting standard applicable to original data is not specified.

\*\*\* Status Flag Summary \*\*\*

Blank status:	Visible	834
	Blanked	0
Independence:	Independent	830
	Physically Subordinate	1
	Logically Subordinate	3
	Totally Subordinate	0
Entity use:	Geometry	830
	Annotation	4
	Definition	0
	Other	0
	Logical/Positional	0
	2D parametric	0
	Not Specified	0
Hierarchy:	Structure DE applies	0
	Subordinate DE applies	834
	Hierarchy property applies	0
	Not Specified	0

\*\*\* Entity Occurrence Counts \*\*\*

Entity	Form	Level	Count	Type
-----	----	-----	-----	-----
100	0	0	1	Circular arc
104	1	0	108	Conic arc - ellipse
106	63	0	1	Simple closed planar curve
110	0	0	421	Line
112	0	0	189	Parametric spline curve
124	0	0	108	Transformation matrix
212	0	0	1	General note
230	0	0	1	Sectioned area (Standard Crosshatching)
404	0	0	1	Drawing
406	16	0	1	Property - Drawing size
406	18	0	1	Property - Intercharacter spacing
410	0	0	1	View - Orthographic parallel

\*\*\* Entity Count by Level \*\*\*

Level	Count
0	834

\*\*\* Labeling Information \*\*\*

0% of the entities are labeled.

Unlabeled	834
-----------	-----

\*\*\* Line Fonts Used in Data \*\*\*

100	102	104	106	108	110	112	114
-----	-----	-----	-----	-----	-----	-----	-----

-	-	-	-	-	-	-	-	Undefined
1	-	108	1	-	415	189	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	1	-	-	Phantom
-	-	-	-	-	5	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116	118	120	122	124	125	126	128
-----	-----	-----	-----	-----	-----	-----	-----

-	-	-	-	108	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

130	132	134	136	138	140	142	144
-----	-----	-----	-----	-----	-----	-----	-----

-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

\*\*\* Line Widths Used in Data \*\*\*

Weight	Count	Width
Defaulted	834	(0.0039)

\*\*\* Colors Used in Data \*\*\*

Defaulted	118
Black	715
White	1

\*\*\*\*\*  
\*\*\*\*\* ENTITY ANALYSIS \*\*\*\*\*  
\*\*\*\*\*

\*\*\* Entity type: 100

\*\*\* Entity type: 104

WARNING 2265: Start point off conic by 1.336260E-03 at D 969.  
WARNING 2039: End point off conic by 1.336260E-03 at D 969.  
WARNING 2265: Start point off conic by 1.804375E-03 at D 973.  
WARNING 2039: End point off conic by 1.804375E-03 at D 973.  
WARNING 2265: Start point off conic by 1.328401E-03 at D 1173.  
WARNING 2265: Start point off conic by 4.571146E-03 at D 1285.  
WARNING 2039: End point off conic by 4.571146E-03 at D 1285.

\*\*\* Entity type: 106

\*\*\* Entity type: 110

-- 421 lines averaging 1.199761E-01 units --

\*\*\* Entity type: 112

WARNING 2238: Polynomial segment (4) at D 1343 is degenerate.  
WARNING 2238: Polynomial segment (1) at D 1487 is degenerate.  
WARNING 2238: Polynomial segment (1) at D 1513 is degenerate.  
WARNING 2238: Polynomial segment (0) at D 1537 is degenerate.  
WARNING 2238: Polynomial segment (1) at D 1541 is degenerate.  
WARNING 2238: Polynomial segment (0) at D 1645 is degenerate.  
WARNING 2238: Polynomial segment (1) at D 1647 is degenerate.

\*\*\* Entity type: 124

108 transformation matrices, 108 non-zero translations.

NOTE 2341: 108 matrices contain translation information.

\*\*\* Entity type: 212

1 text strings in data file.  
Average text aspect ratio in file is 0.9873866.  
Minimum text aspect ratio in file is 0.9873866.  
Maximum text aspect ratio in file is 0.9873866.

---

FONTS USED IN FILE

FONT COUNT NAME

1 1 Default ASCII Style

\*\*\* Entity type: 230

\*\*\* Entity type: 404

Drawing at D 5 contains 1 views.  
Drawing at D 5 contains 0 annotation entities.

\*\*\* Entity type: 406

\*\*\* Entity type: 410

Scale of view at D 1 is 1.000000E+00.  
Orthographic View entity at D 1 has 0 clipping planes specified.  
XMIN = Not Set XMAX = Not Set  
YMIN = Not Set YMAX = Not Set  
ZMIN = Not Set ZMAX = Not Set

\*\*\* Message Summary \*\*\*

2015: 14 Mathematically incorrect definitions.

2018: 1 Problems with line weight/width display information.

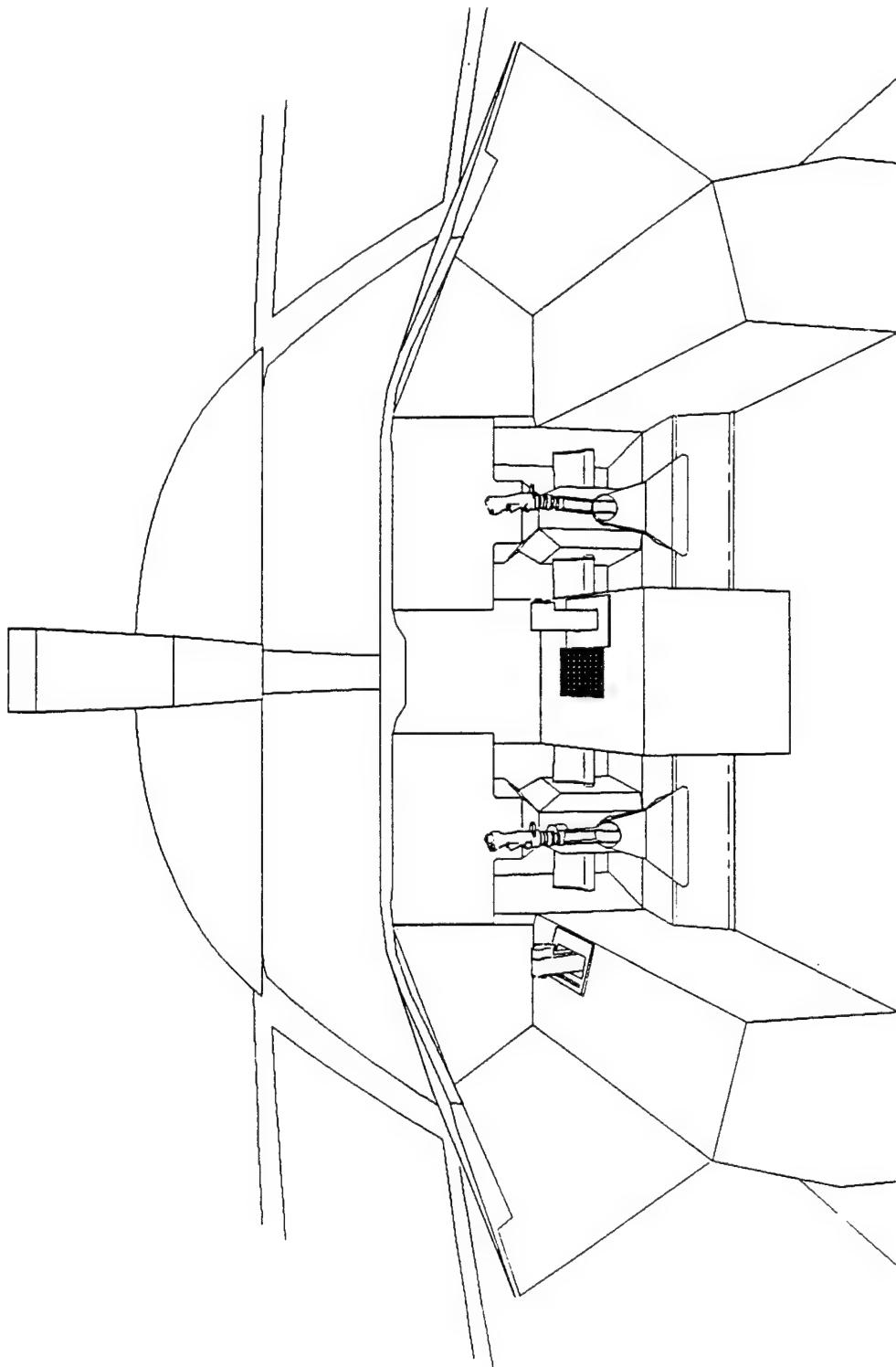
\*\*\* Error Summary \*\*\*

0 fatal errors  
0 severe errors  
0 errors  
14 warnings  
1 cautions  
0 nippicks  
1 notes

\*\*\* End of Analysis of /novell/9323/D001Q005\_IGS \*\*\*

---

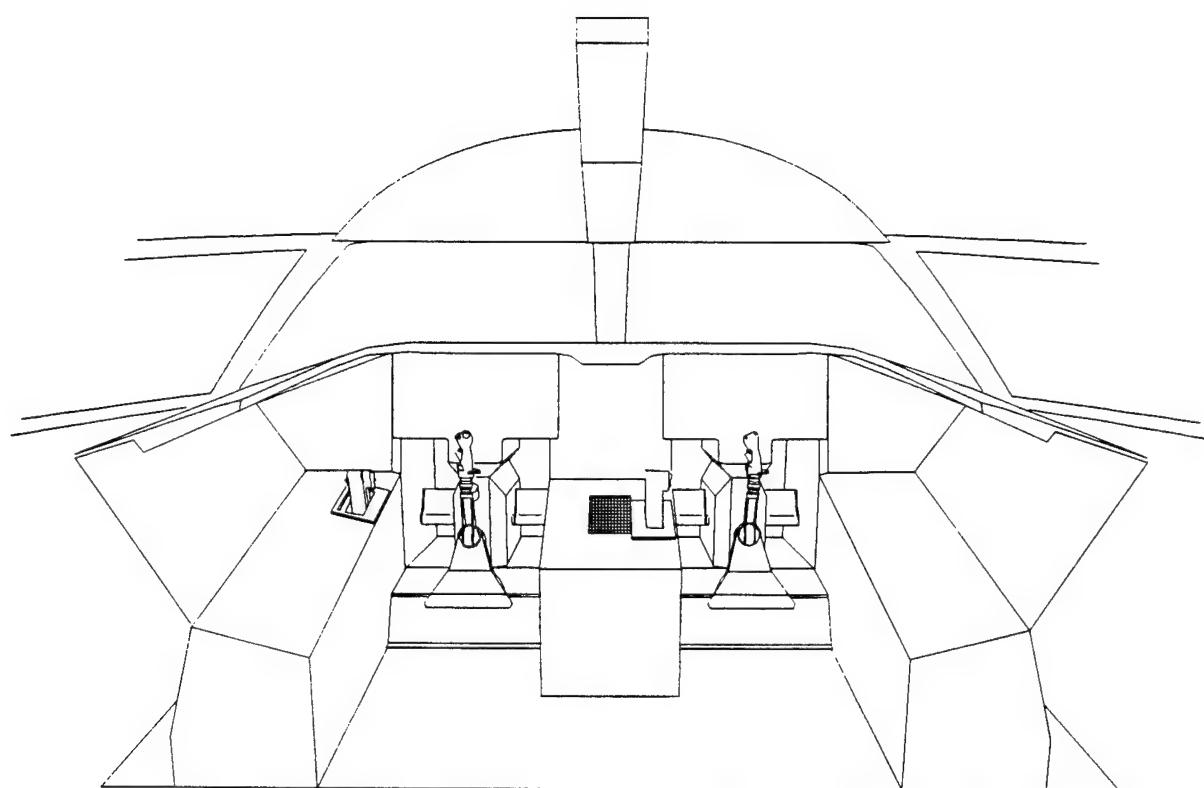
### 10.2.2 Output Cadkey v5.02



B2AJG2112-0101

---

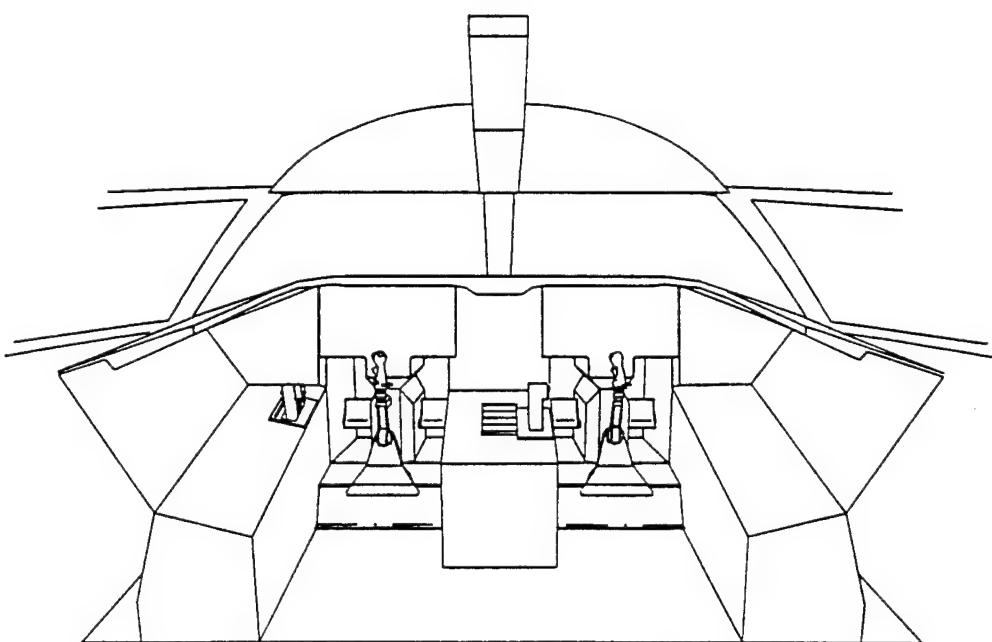
### 10.2.3 Output IGESView



R2A 1C2112-0101A

---

#### 10.2.4 Output IGESWorks



B2AJG2112-0101A

## 10.3 File D001Q006

### 10.3.1 Parser/Verifier Log

```
*** IGES DATA FILE ANALYSIS ***
***          MARCH 1992          ***
***    IGES Data Analysis      ***
***          (708) 449-3430      ***
```

Input file is /novell/9323/D001Q006\_IGS

Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

Today is March 16, 1993 5:00 PM

\*\*\* File and Product Name Information \*\*\*

```
File name from sender      = '0109C.gef.igs'
File creation Date.Time   = '930218.130525'
Model change Date.Time    = ''
Author                    = 'NORTHROP B2 ITDS CTB'
Department                = ''
Product name from sender = '0109C.gef.igs'
Destination product name = '0109C.gef.igs'
```

\*\*\* Parameter Delimiters \*\*\*

```
Delimiter = ','
Terminator = ';'
```

\*\*\* Originating System Data \*\*\*

```
System ID                  = 'ITDS CONVERTER: GEF_IGES'
Preprocessor version        = '1.0'
Specification version       = 6 (IGES 4.0)
```

\*\*\* Precision levels \*\*\*

```
Integer bits = 32
Floating point - Exponent = 38 Mantissa = 6
Double precision - Exponent = 308 Mantissa = 15
```

\*\*\* Global Model Data \*\*\*

```
Model scale                 = 1.0000E+00
Unit flag                   = 1
Units                      = 'IN'
Line weights                = 1
```

Maximum line thickness = 6.300000E-03

Minimum line thickness = 6.300000E-03

CAUTION 2317: Maximum line thickness equal to minimum thickness.

Granularity = 1.000000E-03

Maximum coordinate = 7.243750E+00

Drafting standard applicable to original data is not specified.

\*\*\* Status Flag Summary \*\*\*

Blank status:	Visible	1432
	Blanked	0

Independence:	Independent	1422
	Physically Subordinate	6
	Logically Subordinate	4
	Totally Subordinate	0

Entity use:	Geometry	1417
	Annotation	15
	Definition	0
	Other	0
	Logical/Positional	0
	2D parametric	0
	Not Specified	0

Hierarchy:	Structure DE applies	0
	Subordinate DE applies	1432
	Hierarchy property applies	0
	Not Specified	0

\*\*\* Entity Occurrence Counts \*\*\*

Entity	Form	Level	Count	Type
-----	----	-----	-----	-----
100	0	0	11	Circular arc
104	1	0	266	Conic arc - ellipse
106	63	0	6	Simple closed planar curve
110	0	0	676	Line
112	0	0	189	Parametric spline curve
124	0	0	266	Transformation matrix
212	0	0	7	General note
230	0	0	6	Sectioned area (Standard Crosshatching)
404	0	0	1	Drawing
406	16	0	1	Property - Drawing size
406	18	0	2	Property - Intercharacter spacing
410	0	0	1	View - Orthographic parallel

\*\*\* Entity Count by Level \*\*\*

Level	Count
0	1432

\*\*\* Labeling Information \*\*\*

0% of the entities are labeled.

Unlabeled 1432

\*\*\* Line Fonts Used in Data \*\*\*

100 102 104 106 108 110 112 114

-	-	-	-	-	-	-	-	Undefined
11	-	252	6	-	600	189	-	Solid
-	-	1	-	-	19	-	-	Dashed
-	-	13	-	-	50	-	-	Phantom
-	-	-	-	-	7	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116 118 120 122 124 125 126 128

-	-	-	-	266	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

130 132 134 136 138 140 142 144

-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

\*\*\* Line Widths Used in Data \*\*\*

Weight	Count	Width
Defaulted	1432	(0.0063)

\*\*\* Colors Used in Data \*\*\*

Defaulted	647
Black	778
White	7

\*\*\*\*\*  
\*\*\*\*\* ENTITY ANALYSIS \*\*\*\*\*  
\*\*\*\*\*

\*\*\* Entity type: 100

\*\*\* Entity type: 104

WARNING 2265: Start point off conic by 4.023317E-03 at D 953.  
WARNING 2039: End point off conic by 4.023317E-03 at D 953.  
WARNING 2265: Messages regarding invalid start point suppressed.  
WARNING 2039: Messages regarding conic end points suppressed.

\*\*\* Entity type: 106

\*\*\* Entity type: 110

-- 676 lines averaging 1.383460E-01 units --

\*\*\* Entity type: 112

WARNING 2238: Polynomial segment (0) at D 1345 is degenerate.  
WARNING 2238: Polynomial segment (1) at D 1423 is degenerate.  
WARNING 2238: Polynomial segment (1) at D 1561 is degenerate.  
WARNING 2238: Polynomial segment (0) at D 1563 is degenerate.  
WARNING 2238: Polynomial segment (0) at D 1645 is degenerate.

\*\*\* Entity type: 124

266 transformation matrices, 266 non-zero translations.

NOTE 2341: 266 matrices contain translation information.

\*\*\* Entity type: 212

7 text strings in data file.  
Average text aspect ratio in file is 0.9608803.  
Minimum text aspect ratio in file is 0.8928572.  
Maximum text aspect ratio in file is 0.9923470.

#### FONTS USED IN FILE

FONT	COUNT	NAME
------	-------	------

1        7    Default ASCII Style

\*\*\* Entity type: 230

\*\*\* Entity type: 404

Drawing at D        5 contains 1 views.  
Drawing at D        5 contains 0 annotation entities.

\*\*\* Entity type: 406

\*\*\* Entity type: 410

Scale of view at D        1 is 1.000000E+00.  
Orthographic View entity at D        1 has 0 clipping planes specified.  
XMIN = Not Set        XMAX = Not Set  
YMIN = Not Set        YMAX = Not Set  
ZMIN = Not Set        ZMAX = Not Set

\*\*\* Message Summary \*\*\*

2015: 39 Mathematically incorrect definitions.

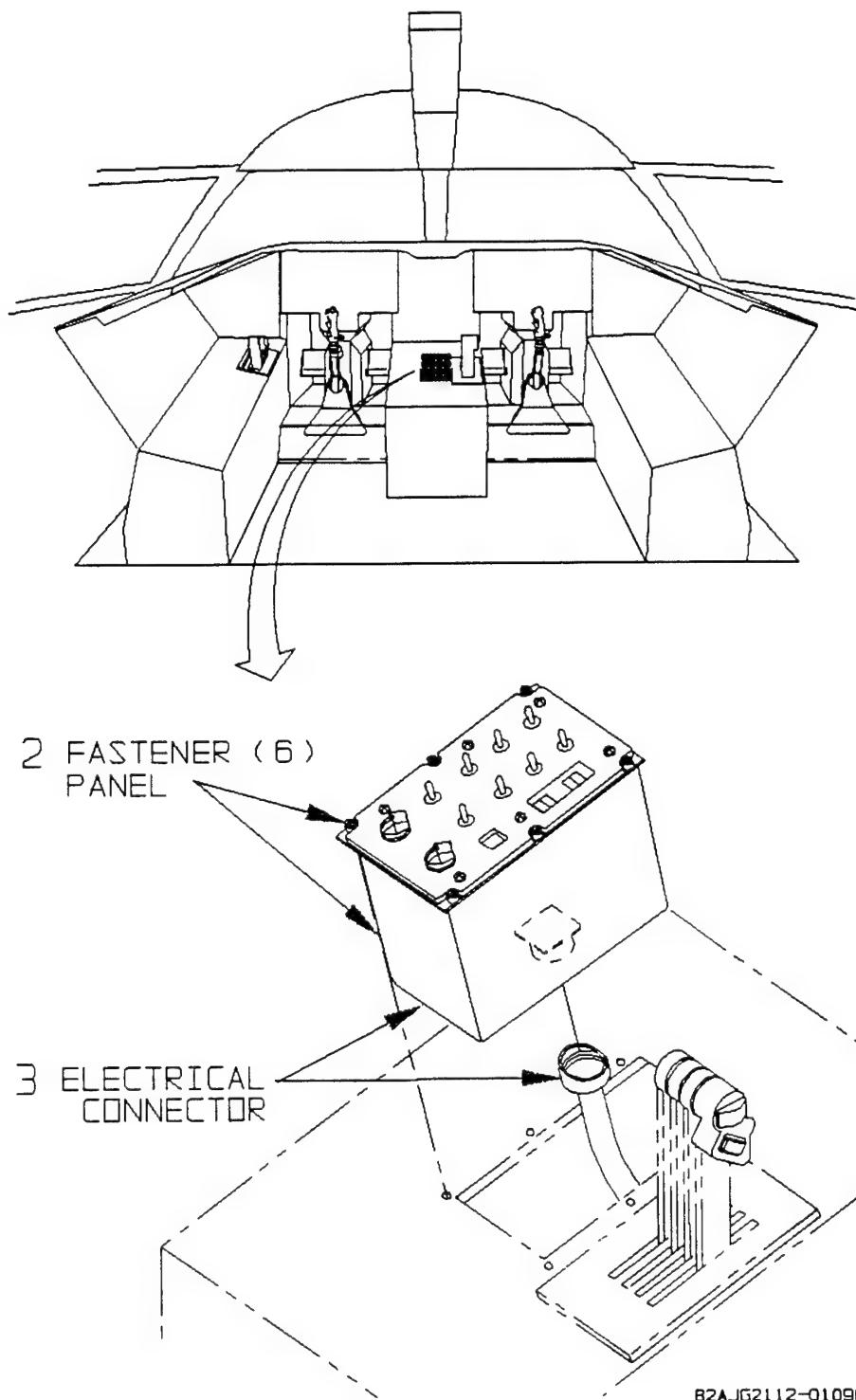
2018: 1 Problems with line weight/width display information.

\*\*\* Error Summary \*\*\*

0 fatal errors  
0 severe errors  
0 errors  
39 warnings  
1 cautions  
0 nitpicks  
1 notes

\*\*\* End of Analysis of /novell/9323/D001Q006\_IGS \*\*\*

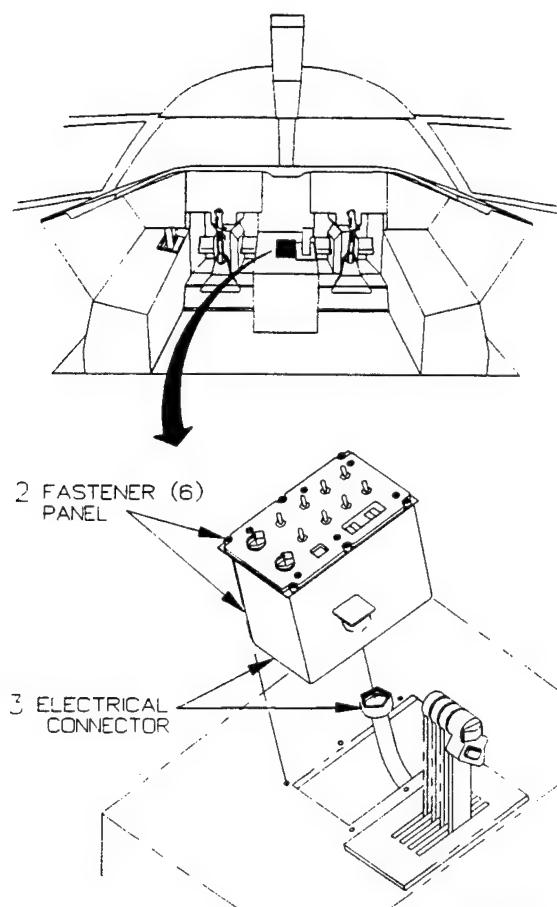
### 10.3.2 Output Cadkey v5.02



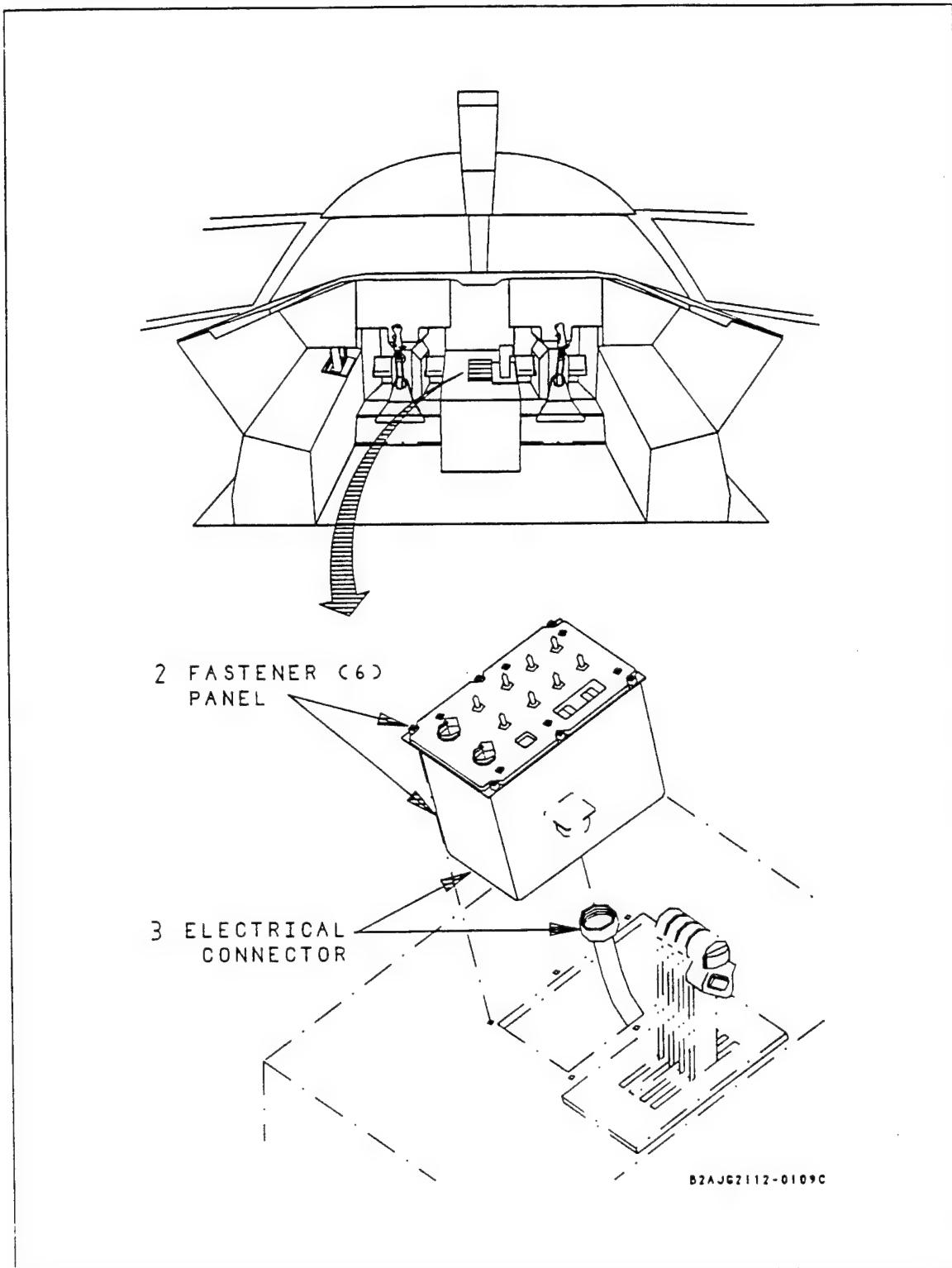
B2AJG2112-0109C

---

### 10.3.3 Output IGESView



### 10.3.4 Output IGESWorks



## 10.4 File D001Q007

### 10.4.1 Parser/Verifier Log

```
*** IGES DATA FILE ANALYSIS ***
***          MARCH 1992          ***
***    IGES Data Analysis      ***
***          (708) 449-3430      ***
```

Input file is /novell/9323/D001Q007\_IGS

Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

Today is March 16, 1993 5:01 PM

\*\*\* File and Product Name Information \*\*\*

```
File name from sender      = '0110B.gef.igs'
File creation Date.Time   = '930218.130543'
Model change Date.Time    = ''
Author                     = 'NORTHROP B2 ITDS CTB'
Department                 = ''
Product name from sender  = '0110B.gef.igs'
Destination product name = '0110B.gef.igs'
```

\*\*\* Parameter Delimiters \*\*\*

```
Delimiter = ','
Terminator = ';'
```

\*\*\* Originating System Data \*\*\*

```
System ID                  = 'ITDS CONVERTER: GEF_IGES'
Preprocessor version        = '1.0'
Specification version       = 6 (IGES 4.0)
```

\*\*\* Precision levels \*\*\*

```
Integer bits =      32
Floating point - Exponent =      38 Mantissa =      6
Double precision - Exponent = 308 Mantissa =     15
```

\*\*\* Global Model Data \*\*\*

```
Model scale                = 1.0000E+00
Unit flag                  = 1
Units                      = 'IN'
Line weights                = 1
```

Maximum line thickness = 6.300000E-03  
Minimum line thickness = 6.300000E-03  
CAUTION 2317: Maximum line thickness equal to minimum thickness.  
Granularity = 1.000000E-03  
Maximum coordinate = 7.243750E+00

Drafting standard applicable to original data is not specified.

\*\*\* Status Flag Summary \*\*\*

Blank status:	Visible	1433
	Blanked	0

Independence:	Independent	1423
	Physically Subordinate	6
	Logically Subordinate	4
	Totally Subordinate	0

Entity use:	Geometry	1417
	Annotation	16
	Definition	0
	Other	0
	Logical/Positional	0
	2D parametric	0
	Not Specified	0

Hierarchy:	Structure DE applies	0
	Subordinate DE applies	1433
	Hierarchy property applies	0
	Not Specified	0

\*\*\* Entity Occurrence Counts \*\*\*

Entity	Form	Level	Count	Type
-----	----	-----	-----	-----
100	0	0	11	Circular arc
104	1	0	266	Conic arc - ellipse
106	63	0	6	Simple closed planar curve
110	0	0	676	Line
112	0	0	189	Parametric spline curve
124	0	0	266	Transformation matrix
212	0	0	8	General note
230	0	0	6	Sectioned area (Standard Crosshatching)
404	0	0	1	Drawing
406	16	0	1	Property - Drawing size
406	18	0	2	Property - Intercharacter spacing
410	0	0	1	View - Orthographic parallel

\*\*\* Entity Count by Level \*\*\*

Level	Count
0	1433

\*\*\* Labeling Information \*\*\*

0% of the entities are labeled.

Unlabeled	1433
-----------	------

\*\*\* Line Fonts Used in Data \*\*\*

100	102	104	106	108	110	112	114
-----	-----	-----	-----	-----	-----	-----	-----

-	-	-	-	-	-	-	-	Undefined
11	-	252	6	-	600	189	-	Solid
-	-	1	-	-	19	-	-	Dashed
-	-	13	-	-	50	-	-	Phantom
-	-	-	-	-	7	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116	118	120	122	124	125	126	128
-----	-----	-----	-----	-----	-----	-----	-----

-	-	-	-	266	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

130	132	134	136	138	140	142	144
-----	-----	-----	-----	-----	-----	-----	-----

-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

\*\*\* Line Widths Used in Data \*\*\*

Weight	Count	Width
Defaulted	1433	(0.0063)

\*\*\* Colors Used in Data \*\*\*

Defaulted	647
Black	778
White	8

\*\*\*\*\*  
\*\*\*\*\* ENTITY ANALYSIS \*\*\*\*\*  
\*\*\*\*\*

\*\*\* Entity type: 100

\*\*\* Entity type: 104

WARNING 2265: Start point off conic by 4.023317E-03 at D 955.  
WARNING 2039: End point off conic by 4.023317E-03 at D 955.  
WARNING 2265: Messages regarding invalid start point suppressed.  
WARNING 2039: Messages regarding conic end points suppressed.

\*\*\* Entity type: 106

\*\*\* Entity type: 110

-- 676 lines averaging 1.380248E-01 units --

\*\*\* Entity type: 112

WARNING 2238: Polynomial segment (0) at D 1351 is degenerate.  
WARNING 2238: Polynomial segment (1) at D 1421 is degenerate.  
WARNING 2238: Polynomial segment (0) at D 1467 is degenerate.  
WARNING 2238: Polynomial segment (1) at D 1567 is degenerate.  
WARNING 2238: Polynomial segment (0) at D 1627 is degenerate.

\*\*\* Entity type: 124

266 transformation matrices, 266 non-zero translations.  
NOTE 2341: 266 matrices contain translation information.

\*\*\* Entity type: 212

8 text strings in data file.  
Average text aspect ratio in file is 0.9635382.  
Minimum text aspect ratio in file is 0.8928572.  
Maximum text aspect ratio in file is 0.9923470.

#### FONTS USED IN FILE

FONT	COUNT	NAME
------	-------	------

1        8     Default ASCII Style

\*\*\* Entity type: 230

\*\*\* Entity type: 404

Drawing at D        5 contains 1 views.  
Drawing at D        5 contains 0 annotation entities.

\*\*\* Entity type: 406

\*\*\* Entity type: 410

Scale of view at D        1 is 1.000000E+00.  
Orthographic View entity at D        1 has 0 clipping planes specified.  
XMIN = Not Set        XMAX = Not Set  
YMIN = Not Set        YMAX = Not Set  
ZMIN = Not Set        ZMAX = Not Set

\*\*\* Message Summary \*\*\*

2015: 39 Mathematically incorrect definitions.

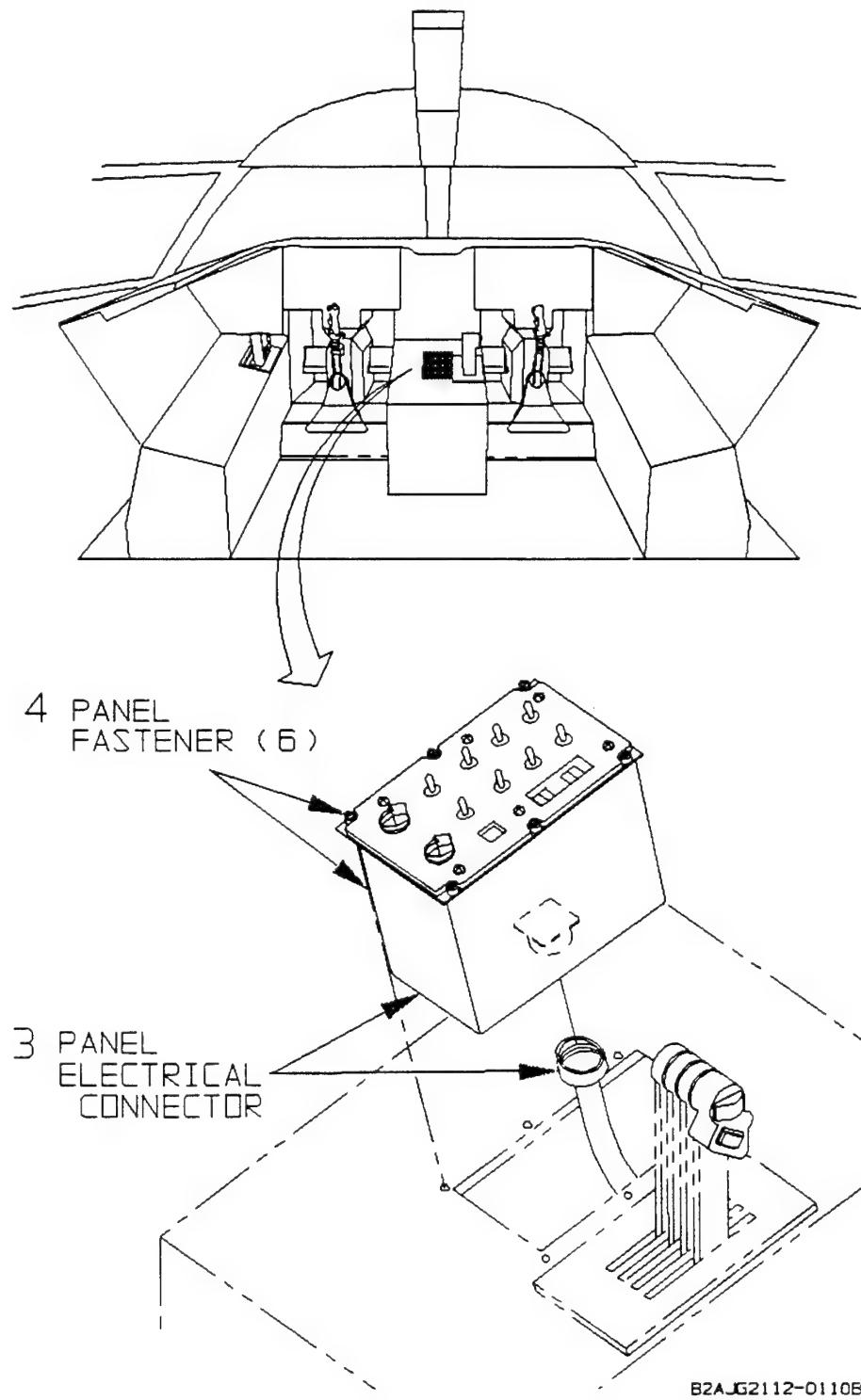
2018: 1 Problems with line weight/width display information.

\*\*\* Error Summary \*\*\*

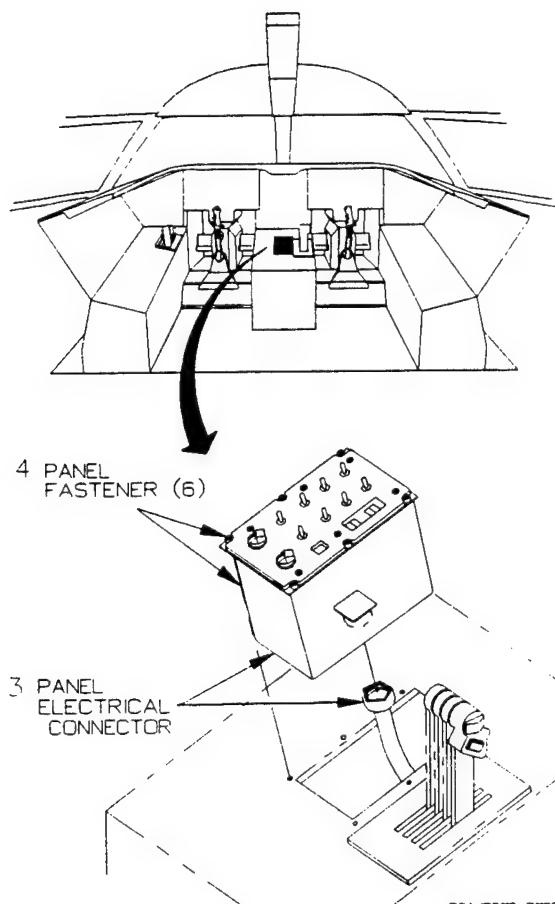
0 fatal errors  
0 severe errors  
0 errors  
39 warnings  
1 cautions  
0 nitpicks  
1 notes

\*\*\* End of Analysis of /novell/9323/D001Q007\_IGS \*\*\*

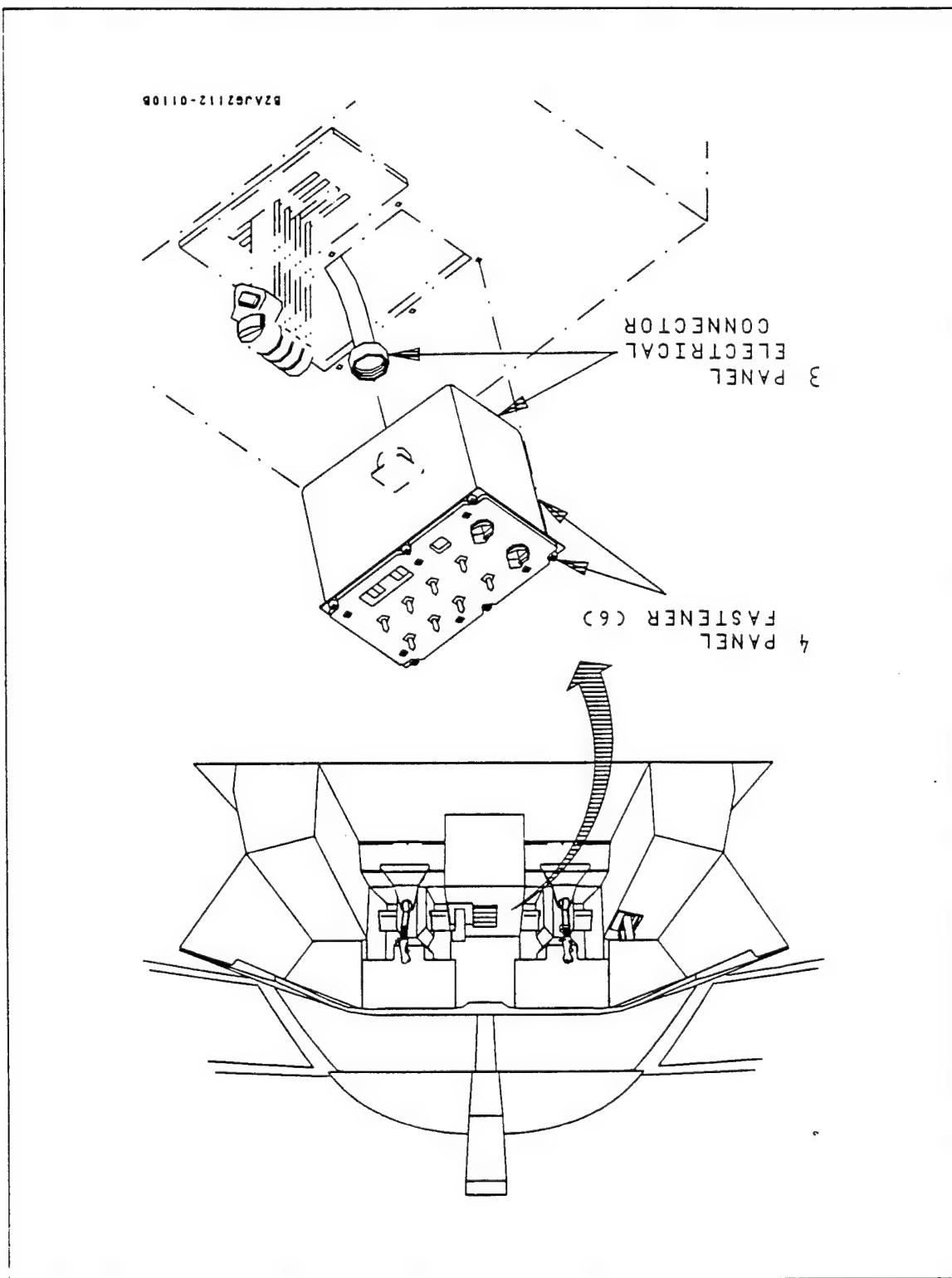
## 10.4.2 Output Cadkey v5.02



### 10.4.3 Output IGESView



#### 10.4.4 Output IGESWorks



## 11. Appendix C - Detailed SGML Analysis

### 11.1 Parser Log

#### 11.1.1 DTD Log

```
SGML Document Type Definition Parser
An SGML System Conforming to
International Standard ISO 8879
Standard Generalized Markup Language
```

```
Log file: '9323.LOG'
SDO File: 'ctndecl.sdo'
Namecase General is yes.
Namecase Entity is no.
Parsing DTD file: '9323.dtd'
```

```
This DTD conforms to the ISO 8879 standard
```

```
DTO file '9323.DTO' created
```

```
closing statistics:
```

Capacity points:	27392
Bytes of DTO file string space:	7968
SGML descriptor blocks:	2992

```
Document Type Definition is compliant and parsed normally.
```

```
Program status code: 0.
```

#### 11.1.2 Text Log

```
IPA0108:      *** SGML Instance Parser Log File ***
Source Document File:  'i:\9323\d001t001.'.
Job File:      '9323.jbf'.
DTD File:      ''.
SGML Declaration File:  ''.
```

```
Reading File '9323.jbf', File Type 'JOB FILE'.
```

```
Concrete Syntax Settings In Effect For This Parse:
NAMECASE GENERAL: YES.
NAMECASE ENTITY: NO.
NAMELEN:          32.
```

```
SHORTTAG: YES.  
Closed '9323.jbf', File Type 'JOB FILE'.  
Reading File 'i:\9323\d001t001.', File Type 'DIRECT INPUT FILE'.  
--> Scanned Up To Line 100 In i:\9323\d001t001..  
--> Scanned Up To Line 200 In i:\9323\d001t001..  
--> Scanned Up To Line 300 In i:\9323\d001t001..  
--> Scanned Up To Line 400 In i:\9323\d001t001..  
--> Scanned Up To Line 500 In i:\9323\d001t001..  
Closed 'i:\9323\d001t001.', File Type 'DIRECT INPUT FILE'.  
Document Parsed Successfully, No Errors or Warnings.
```

## 11.2 Exoterica Parser

### 11.2.1 DTD Log

```
C:\XGML\XGMLNORM.EXE --  
Error on line 466 in file entities/9323.dtd: A content model is ambiguous. For element  
'TOC'. The input is 'CONTENTSENTRY'. <!-- The document prolog is in error. -->
```

### 11.2.2 Text Log

#### 11.2.2.1 First Pass

```
C:\XGML\XGMLNORM.EXE --  
Error on line 94 in file i:\9323\d001t001:  
Unexpected start tag encountered.  
The start tag is for element 'CONTENTSENTRY'.  
The current element is 'TOC'.  
End tags for the following elements are allowed: 'TOC'.  
Start tags for the following elements are allowed: None.  
Start tags for the following inclusions are allowed: 'BRK', 'HRULE',  
'PGBRK'.  
Text is not allowed.  
The element 'CONTENTSENTRY' will be treated as an inclusion.
```

```
C:\XGML\XGMLNORM.EXE --  
Error on line 106 in file i:\9323\d001t001:  
Unexpected start tag encountered.  
The start tag is for element 'CONTENTSENTRY'.  
The current element is 'SSSN'.  
End tags for the following elements are allowed: 'SSSN', 'SUBENTRY',  
'CONTENTSENTRY', 'TOC'.  
Start tags for the following elements are allowed: 'APPLICABIL',
```

'CHANGE', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI', 'HCP', 'OCP',  
'SUBENTRY', 'SUBENTRY1', 'XREF'.  
Start tags for the following inclusions are allowed: 'BRK', 'HRULE',  
'PGBRK'.  
Text is allowed.  
The element 'CONTENTSENTRY' will be treated as an inclusion.

C:\XGML\XGMLNORM.EXE --  
Error on line 118 in file i:\9323\d001t001:  
Unexpected start tag encountered.  
The start tag is for element 'CONTENTSENTRY'.  
The current element is 'SSSN'.  
End tags for the following elements are allowed: 'SSSN', 'SUBENTRY',  
'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'TOC'.  
Start tags for the following elements are allowed: 'APPLICABIL',  
'CHANGE', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI', 'HCP', 'OCP',  
'SUBENTRY', 'SUBENTRY1', 'XREF'.  
Start tags for the following inclusions are allowed: 'BRK', 'HRULE',  
'PGBRK'.  
Text is allowed.  
The element 'CONTENTSENTRY' will be treated as an inclusion.

C:\XGML\XGMLNORM.EXE --  
Error on line 129 in file i:\9323\d001t001:  
Unexpected start tag encountered.  
The start tag is for element 'CONTENTSENTRY'.  
The current element is 'SSSN'.  
End tags for the following elements are allowed: 'SSSN', 'SUBENTRY',  
'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'SSSN',  
'SUBENTRY', 'CONTENTSENTRY', 'TOC'.  
Start tags for the following elements are allowed: 'APPLICABIL',  
'CHANGE', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI', 'HCP', 'OCP',  
'SUBENTRY', 'SUBENTRY1', 'XREF'.  
Start tags for the following inclusions are allowed: 'BRK', 'HRULE',  
'PGBRK'.  
Text is allowed.  
The element 'CONTENTSENTRY' will be treated as an inclusion.

C:\XGML\XGMLNORM.EXE --  
Error on line 140 in file i:\9323\d001t001:  
Unexpected start tag encountered.  
The start tag is for element 'CONTENTSENTRY'.  
The current element is 'SSSN'.  
End tags for the following elements are allowed: 'SSSN', 'SUBENTRY',  
'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'SSSN',  
'SUBENTRY', 'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'TOC'.  
Start tags for the following elements are allowed: 'APPLICABIL',  
'CHANGE', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI', 'HCP', 'OCP',  
'SUBENTRY', 'SUBENTRY1', 'XREF'.

---

Start tags for the following inclusions are allowed: 'BRK', 'HRULE',  
'PGBRK'.

Text is allowed.

The element 'CONTENTSENTRY' will be treated as an inclusion.

### 11.2.2.2 Second Pass

C:\XGML\XGMLNORM.EXE --

Error on line 68 in file i:\9323\d001t001:

Unexpected start tag encountered.

The start tag is for element 'TABLE'.

The current element is 'SSSN'.

End tags for the following elements are allowed: 'SSSN', 'SUBENTRY',  
'CONTENTSENTRY', 'TOC'.

Start tags for the following elements are allowed: 'APPLICABIL',  
'CHANGE', 'CONTENTSENTRY', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI',  
'HCP', 'OCP', 'SUBENTRY', 'SUBENTRY1', 'XREF'.

Start tags for the following inclusions are allowed: 'BRK', 'HRULE',  
'PGBRK'.

Text is allowed.

The element 'TABLE' will be treated as an inclusion.

## 12. Appendix D - Detailed Raster Analysis

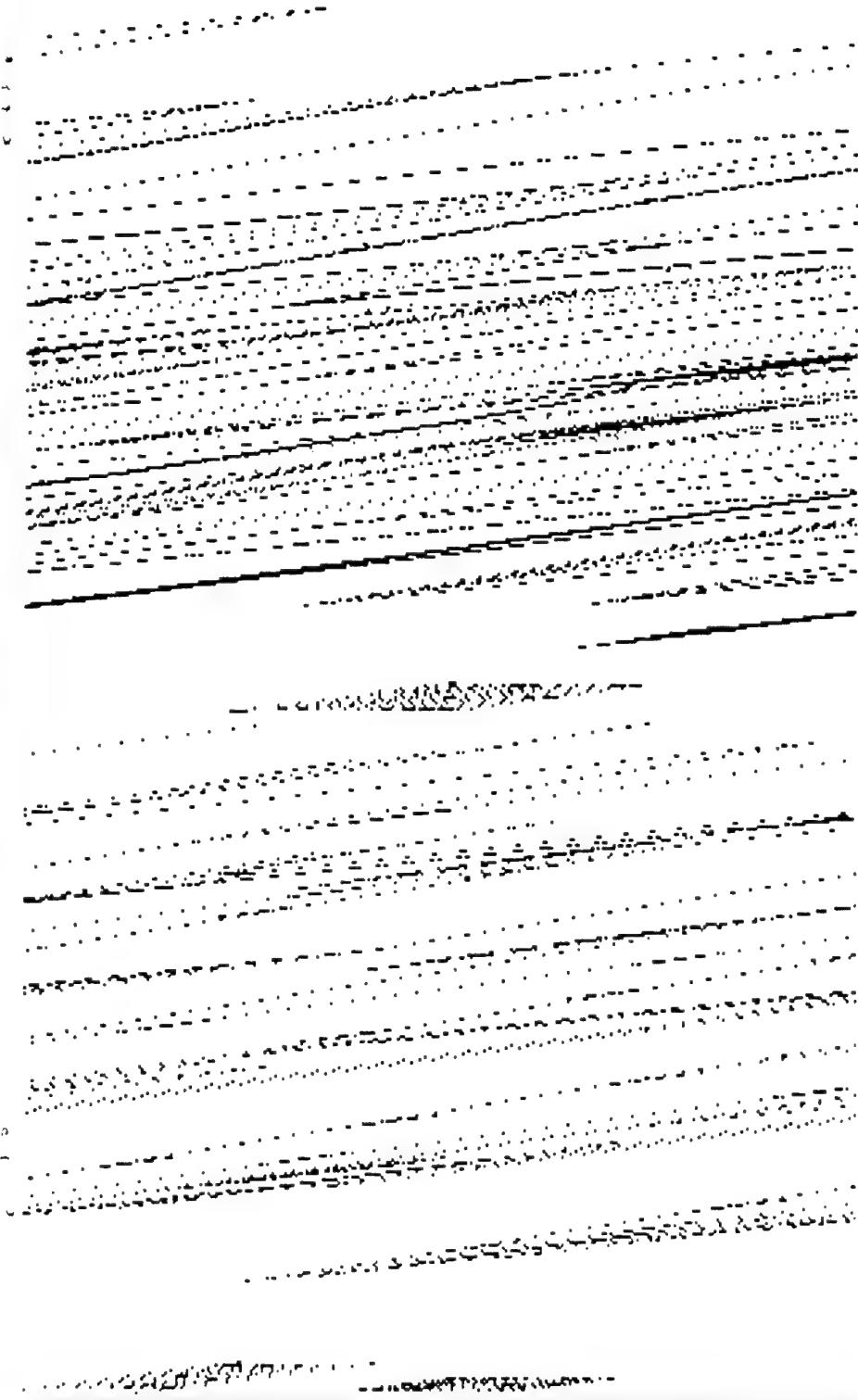
### 12.1 File D001R009

#### 12.1.1 Error Log validg4

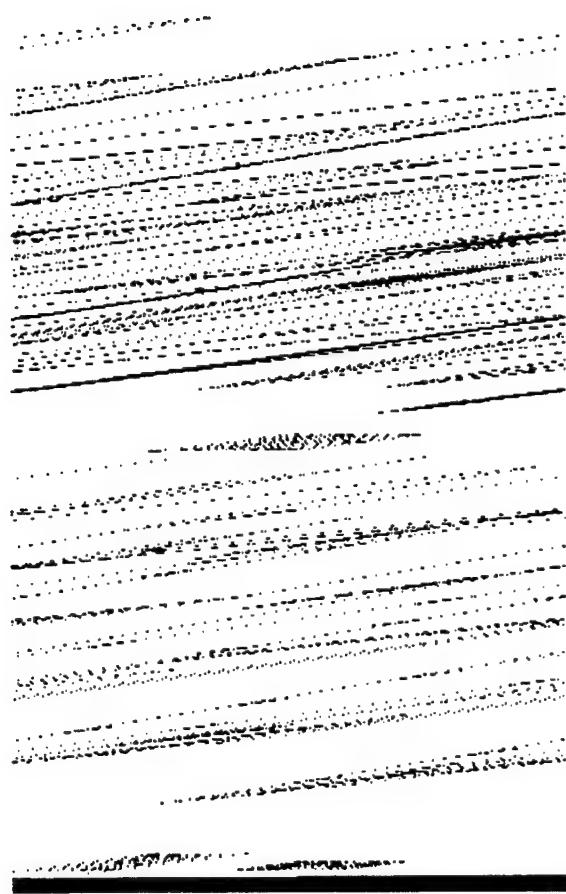
```
density      = 300
path length = 312
scan lines  = 500
bit format   = MSB
```

```
error reading input file
```

### 12.1.2 Output g42tiff/IslandPaint



### 12.1.3 Output IGESView



## 13. Appendix E - Detailed CGM Analysis

### 13.1 File D001C008

#### 13.1.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/17/93      Time: 07:58:57
```

```
Metafile Examined : i:\9323\c008.cgm
```

```
Pictures Examined : All
Elements Examined : All
Bytes Examined : All
```

```
===== Trace Report =====
```

```
Tracing not selected.
```

```
===== CGM Conformance Violation Report =====
```

```
No Errors Detected
```

```
===== CALS CGM Profile (MIL-D-28003) Report =====
```

```
No profile discrepancies detected.
```

```
===== Conformance Summary Report =====
```

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/17/93      Time: 07:59:03
```

```
Name of CGM under test: i:\9323\c008.cgm
Encoding : Binary
```

```
Pictures Examined : All
Elements Examined : All
Bytes Examined : All
```

```
BEGIN METAFILE string : "0103D.cgm"
METAFILE DESCRIPTION : "NORTHROP B2 ITDS GEF, MIL-D-28003/BASIC-1"
```

```
Picture 1 starts at octet offset 154; string contains: "Picture 1"
```

---

Private values encountered in CGM

Conformance Summary : This file conforms to the CGM specification.

This file meets the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

1 Pictures Tested  
2192 Elements Tested  
48616 Octets Tested

=====| No Errors Were Detected |=====

===== End of Conformance Report =====

### 13.1.2 validcgm Log

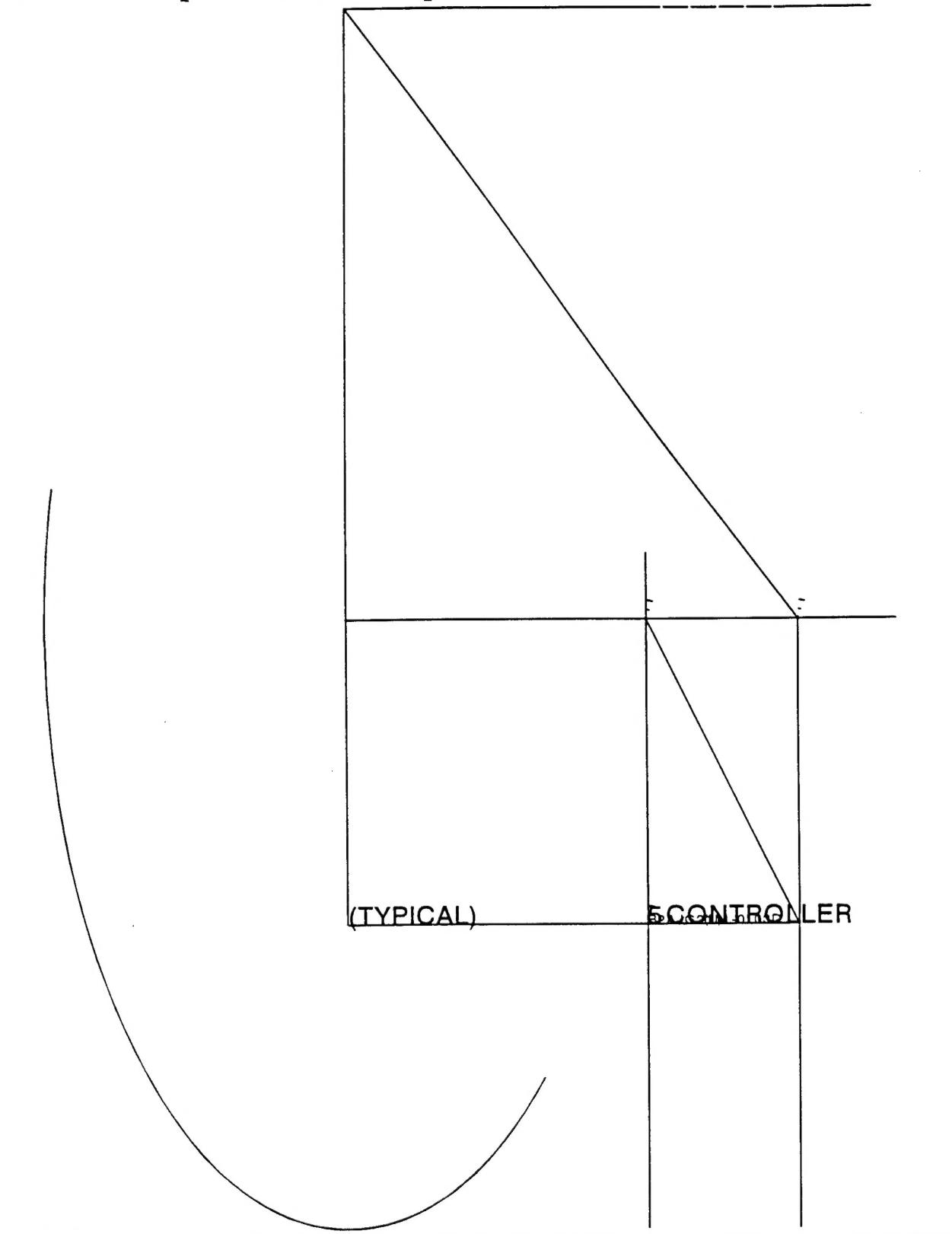
Analysis for file c008.cgm using table table  
ERROR: illegal in this state (2), std B  
ERROR: required precursor (0, 4) not yet seen  
(14,1, 0) (3, 6, 2) Clip Indicator OFF  
(0, 1) occurred 1 time  
(0, 2) occurred 1 time  
(0, 3) occurred 1 time  
(0, 4) occurred 1 time  
(0, 5) occurred 1 time  
(1, 1) occurred 1 time  
(1, 2) occurred 1 time  
(1, 3) occurred 1 time  
(1, 4) occurred 1 time  
(1, 5) occurred 1 time  
(1, 6) occurred 1 time  
(1, 7) occurred 1 time  
(1, 8) occurred 1 time  
(1, 9) occurred 1 time  
(1, 10) occurred 1 time  
(1, 11) occurred 1 time  
(1, 12) occurred 1 time  
(1, 13) occurred 1 time  
(2, 2) occurred 1 time  
(2, 6) occurred 1 time  
(2, 7) occurred 1 time  
(3, 2) occurred 1 time  
(3, 6) occurred 1 time

(3, 6) occurred illegally 1 time  
(4, 1) occurred 624 times  
(4, 4) occurred 5 times  
(4, 7) occurred 5 times  
(4, 15) occurred 20 times  
(4, 17) occurred 165 times  
(4, 18) occurred 565 times  
(5, 2) occurred 99 times  
(5, 3) occurred 99 times  
(5, 4) occurred 99 times  
(5, 10) occurred 1 time  
(5, 12) occurred 3 times  
(5, 13) occurred 3 times  
(5, 14) occurred 1 time  
(5, 15) occurred 4 times  
(5, 16) occurred 4 times  
(5, 17) occurred 1 time  
(5, 18) occurred 1 time  
(5, 22) occurred 95 times  
(5, 23) occurred 2 times  
(5, 27) occurred 93 times  
(5, 28) occurred 93 times  
(5, 29) occurred 93 times  
(5, 30) occurred 95 times  
(5, 34) occurred 1 time

---

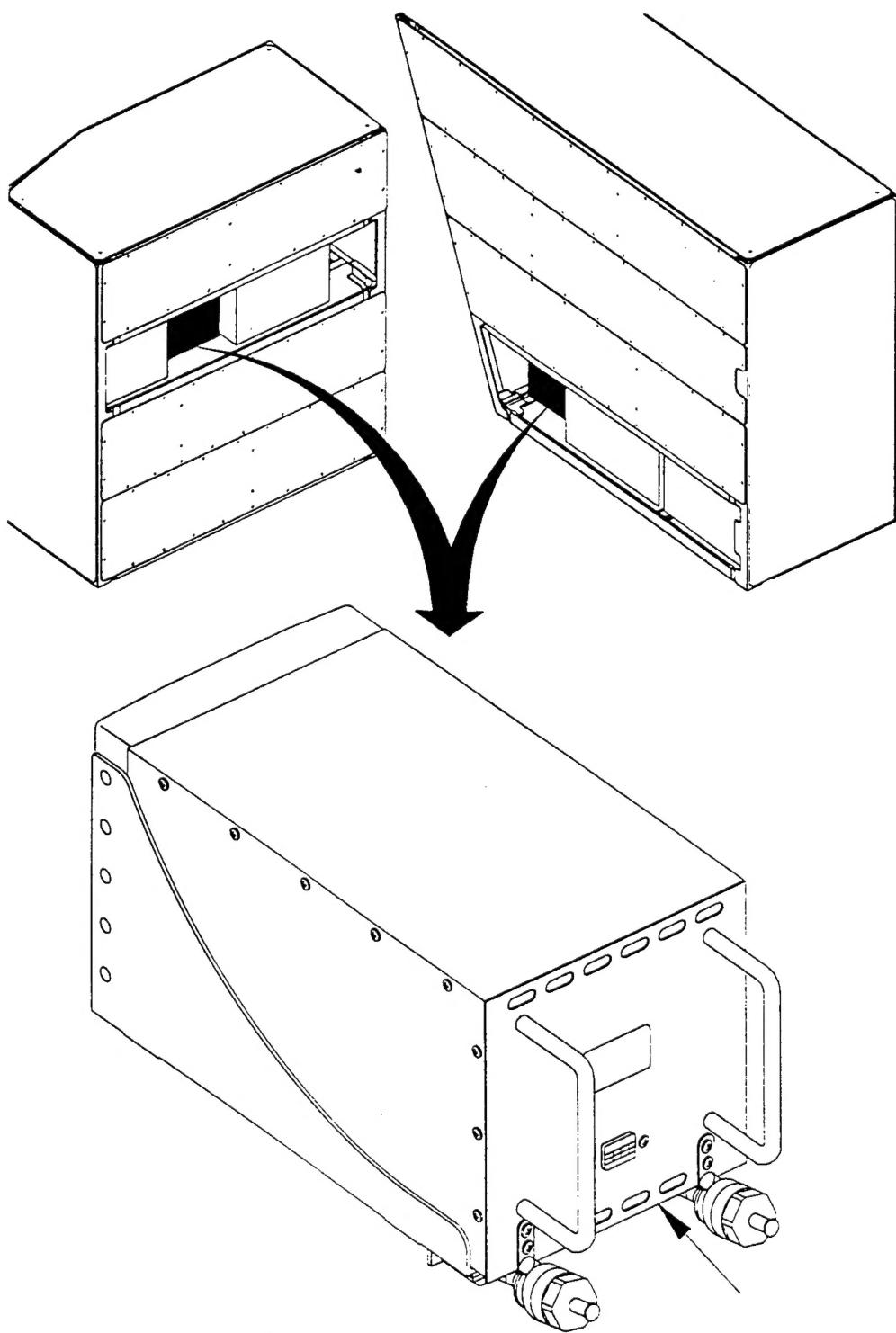
### 13.1.3 Output Harvard Graphics

---



---

### 13.1.4 Output cgm2draw/IslandDraw



### 13.1.5 Output CADleaf

